Enterovesical fistula due to Crohn's disease masquerading as bladder tumor

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ENTEROVESICAL FISTULA DUE TO CROHN'S DISEASE MASQUERADING AS BLADDER TUMOR

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Enterovesical fistula as a complication of Crohn's disease is a rare condition. A case of Crohn's disease with ileovesical and rectovesical fistulas manifesting as bladder tumor is presented.

Key words: Crohn's disease, Ileovesical and rectovesical fistulas, Bladder tumor

Enterovesical fistulas are an uncommon manifestation of inflammatory and neoplastic disorders. In the world literature the occurrence of enterovesical fistula was 2 to 4 % of all the urological complications[1,2]. We have encountered a case of Crohn's disease with ileovesical and rectovesical fistulas. Herein we describe a case of enterovesical fistula due to Crohn's disease presenting as bladder tumor.

CASE REPORT

A twenty-five-year-old man presented with a one-year history of lower abdominal pain and diarrhea. He had also noticed clouded urine and micturition pain for nine months. Cystoscopy revealed a broad based flat tumor with partial papillomatous growth around a right ureteral orifice. Surgical specimen obtained by transurethral resection showed the inflammatory reaction with edema, telangiectasia and cell infiltration, but no malignancy was found.

One month after biopsy he was admitted to our department because of fever, clouded urine and fecaluria. Previous operations included a right inguinal herniorrhaphy and two hemorrhoidectomies.

Physical examination on admission was not remarkable. Complete blood count showed leukocytosis and hypochromic anemia. Blood chemistry was noncontributory except for low total protein (5.6 g/dl), CRP (卄) and acceleration of ESR (20 mm/hr). Urinalysis revealed numerous leukocytes and *pseudomonas aeruginosa* was identified by urine culture. Excretory urogram revealed no pathological findings.

Fig. 1. Cystography reveals communication between bladder and ileum or colon.

Fig. 2. Barium enema shows that no contrast medium moved from the terminal ileum.

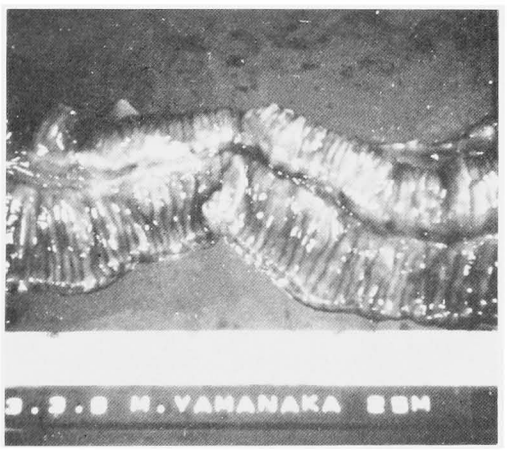

Fig. 4. Macroscopic findings. Longitudinal ulcers along mesenteric attachment which are characteristic to Crohn's disease are noted.

Cystography disclosed passage of contrast medium through the ileum end toward ascending colon and then rectum, sigmoid and descending colon were visualized. There were several small circular irregular defects in the ileocecal area (Fig. 1). Barium enema revealed no passage of contrast medium from the terminal ileum suggesting a severe stenotic change, but communication between colon and bladder

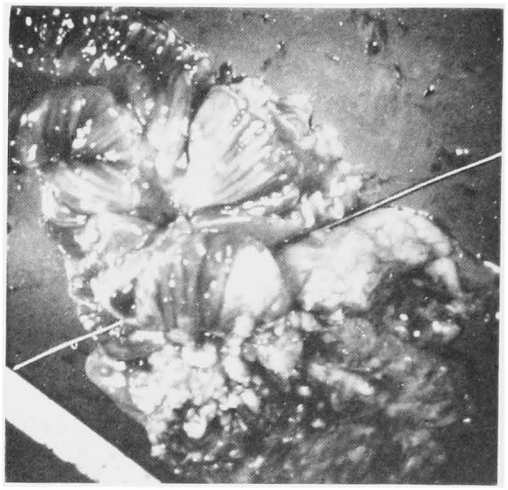

Fig. 3. Macroscopic findings. The fistula between ileum end and bladder was noted where the tube was inserted. Several ulcers and pseudopolyps are recognized in the ileocecal area.

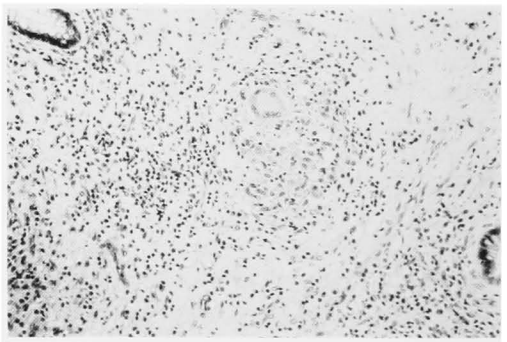

Fig. 5. Histological findings of the specimen resected from the lesion of ileum reveal a noncaseating granuloma with a multinucleated giant cell in the submucosa, original magnification ×200.

was not recognized (Fig. 2). Based on these preoperative studies, he was diagnosed to have chronic inflammation of ileocecal region and vesicointestinal and vesicorectal fistulas. Laparotomy was carried out.

The ileocecal region formed a hard mass with an adhesion to the anterior bladder wall. Vesicointestinal fistula was found in the adhesion. Vesicorectal fistula was also recognized. Excision of 70 cm of ileum, cecum and 10 cm of ascending colon was performed. Furthermore, loop colostomy was performed in the sigmoid colon. Partial resection of the bladder wall was

done simultaneously. In operative specimens, longitudinal and sporadic ulcers a part of which formed fistula to the bladder were recognized in the ileum and rectum (Fig. 3). Granulomatous changes involved the entire intestinal wall and the mucosal layer with longitudinal ulcers which were characteristic of Crohn's disease were noted (Fig. 4).

Histologically, small granulomatous changes with giant cells and inflammatory cells infiltration were confirmed in the submucosal layer (Fig. 5). Pathological diagnosis was Crohn's disease. The patient made an uneventful recovery.

COMMENT

Enterovesical fistulas develop because of a congenital abnormality, a traumatic incident, or an underlying disease, such as inflammation or cancer. Rectal cancer and diverticulitis of the sigmoid colon are the most common causes of colovesical fistula[3~5] Michael et al. reported that inflammation, either diverticulitis or Crohn's disease, was the cause of fistula in 73 of 109 patients with colovesical or rectovesical fistulas seen at the Mayo Clinic, between 1965 and 1980[6]. Carson reported that Crohn's disease involved 12% of all enterovesical fistulas[7].

Cystoscopy has been reported to demonstrate a fistula in 23 to 100 per cent of the patients[8,9]. In our case endoscopic study incidentally disclosed inflammatory changes in the epithelium. Although some authors[8,10] have not found barium enemas useful in demonstrating a fistula, Michael et al. confirm the results of others[11,12]which suggest that a barium enema may be diagnostic in over 40 per cent of the studies[13]. Intravenous pyelography, cystography and proctoscopy should not detract from their important role of supplying additional information preoperatively. In our case cystography finally confirmed the rectovesical and intestinovesical fistulas.

In the management of a fistula, the entire diseased intestine should be resected in the case of systemic diseases like Crohn's disease. However, the postoperative recurrence rate in Crohn's disease is high and early operation does not necessarily prevent the recurrence. Therefore, sufficient course observation is needed.

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和文抄録

クローン氏病による膀胱腫瘍を思わせた膀胱腸瘻の1例

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三宅弘治・三矢英輔

クローン氏病の合併症としての膀胱腸瘻は極めて稀な疾患である．今回われわれは，膀胱腫瘍を疑わせた，回腸膀胱瘻及び直腸膀胱瘻を伴うクローン氏病の1例を経験したので報告する．